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1. Role of German Electronics Specialists in the USSRa. Training of Soviet Engineers

- (1) [] the original and most important reason for the evacuation of German electronics specialists to the USSR was not, as initially believed by nearly all Germans in the USSR [] to use them for advanced research and development on new electronics systems and equipment or to exploit their technological capabilities for improving or copying of the World War II German and other western equipment. [] this misunderstanding by the Germans of the real reasons for their being in the USSR was the main cause of their dissatisfaction and led to serious friction with the Soviets, as the German specialists believed that their advanced technical experience was not being used properly. Nor were the Germans brought to the USSR for the purpose of rebuilding the research, development and production facilities taken by the Soviets from Germany; for example, most of the OSW equipment brought to the USSR was still in storage [] and only a very few parts were cannibalized by the German engineers for components which were hard to obtain otherwise. 25X1
- (2) [] the original reason for bringing Germans to the USSR was to use them for training of Soviet engineers in the advanced fields of electronics (such as high-frequency technique, navigation and direction 25X1

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finding, specialized vacuum tubes, etc) and in the basic engineering methods in design, development and production. Later (in 1947) this training concept was enlarged to include the build-up on a large scale of new laboratories, shops, and other pertinent facilities to be used in training new Soviet engineering graduates; and to interpret for the Soviet engineers contemporary foreign electronics developments, primarily those of the USA.

- (3) "The basic concept of exploitation of Germans for training purposes was so clearly and strongly recognized by the Soviet leaders in electronics, and it was so adroitly managed by them and implemented through the whole structure of the Soviet electronics industry, that Soviet claims of having sufficient cadres of well-qualified and capable engineers in all branches of electronics and at all levels of operations, ie, research, development, design, testing and production, in order to become independent of further German assistance, was reasonably well justified by 1952

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- (4) "Early in 1946 [] told by several Soviet technical representatives in East Germany, and particularly by Admiral Berg (Malenkov's representative on the Radar Committee) that the initial post-World War II Soviet idea was to train their electronics engineers at the Oberspreewerke in Berlin at the rate of 200 Soviet engineers at a time /period of training was not obtained/. The idea was formulated into a plan which was set into operation during the summer of 1946. The main reason for this training, according to Admiral Berg (in 1946), was to fill the critical gap in Soviet technology caused by the severe shortage of electronic application engineers. Admiral Berg claimed that the Soviets had good scientists, a few good brains in high positions in all fields, especially in electronic technology, and good mechanics, but that the technical middle class (practical engineers) was lacking entirely. This initial plan was changed suddenly in September 1946 after a visit to Berlin of a high ranking Soviet official. [] it was Stanov (phonetic). The visit produced a basic change in the attitude of the Soviet occupational authorities toward the Germans at all levels. It terminated the short period of relatively free contact between the Soviet personnel and the Germans and restricted contacts to strictly official business. [] the change was due to the fear of the Soviet highest authorities in Moscow that unrestricted contacts with the Germans might expose their personnel to the corruptive influences of Western political ideology and mode of life. This change in policy in Berlin, [] resulted in the decision to transfer the center of training to the USSR, to evacuate the required German specialists for training purposes and to terminate the original Soviet plans for the use of the Oberspreewerke as a Soviet training institute.

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- (5) "Later (in 1947?) in Fryazino, Admiral Berg restated [] that the primary task of the Germans in Fryazino was to train Soviet engineers. Admiral Berg said, 'But we must admit that we have practically no engineers to train now. Most of our young men died in the war. You could go through our universities and find that there are mostly young women, hardly any men, there. The condition will change; in three years we

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will be able to send a great number of young engineers to Fryazino for training.' And that is exactly what happened; in 1950 a great number of young Soviet graduates came to Fryazino, and to other institutes, for training. There was an implication in Admiral Berg's comments that during the interim three-year period the German specialists were to be used to assist in building up the institute and its facilities on a scale required for the anticipated 'on-the job' training of new Soviet technical graduates at a later date.

b. Other Uses of German Specialists by the USSR.

- (1) "Although [] the training of Soviet electronics engineers was the most important reason for the large-scale evacuation of German specialists to the USSR [] there were secondary reasons. These stemmed from the strong desire of specialized Soviet organizations within their military services and within other governmental offices to have German technical specialists work directly for them on their immediate problems. German groups recruited by these organizations were frequently given special privileges and permitted to work on specialized problems with a considerable degree of technical latitude. There were several such German groups as previously mentioned by me in other interviews [] the Belyakov group on long-range navigation, headed by Dr Kotovski and Dr Kaufmann; the Buschbeck group working on guided missiles; an MVD group concerned with radio monitoring and intercept devices where Rehbock and Schuettloeffel worked. There was also a group of radar specialists formerly working in Erfurt, which came to the USSR without any compulsion late in 1947 and worked in Leningrad; and a group of German specialists from Halle which later worked in Kalinin on proximity fuses. [] members of this group received about three times the salary other Germans received. Although all these groups contributed in the long run to training Soviet engineers in their specialized fields [] that they were initially recruited for special purposes.

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- (2) "Even those German specialists at Fryazino and other institutes who were recruited by the Soviets essentially for training purposes were frequently assigned special problems dictated by the then current Soviet engineering program which they handled either individually or with the assistance of other personnel, German or Soviet. These problems, however, were carried by the Germans only up to a certain point and were then transferred to other purely Soviet organizations to complete and implement their findings.
- (3) "There was a clear differentiation between the use by the Soviets of German scientists and senior engineers, and of German low-level application engineers and mechanics. The top-level German specialists were used primarily as consultants or advisors to the Soviet specialists; and, if assigned specific tasks or if they formulated their own, were permitted to carry these up to a point determined by the Soviet personnel, frequently without complete knowledge of the factors that led to their tasks or of the end use or disposition of their work. This procedure differed so much from the conditions to which the German specialists were accustomed, even under war-time security restrictions, that they universally felt that they were ill-used by the lower-grade backward Soviet specialists.

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the result of the overly complicated Soviet governmental structure and lack of proper coordination, or of the Soviet belief that by the time the repatriates share their information with the West the security damage to the USSR will be nil.

d. German Contribution to Soviet Progress.

- (1) [] the greatest contributions of German specialists to the Soviets in the field of electronics are:
- (a) training of a new generation of Soviet engineers in contemporary knowledge and technology;
 - (b) providing this training on an 'on-the-job' basis, under conditions which are familiar to the Soviet engineers, and which apply to urgent current Soviet problems;
 - (c) laying a foundation for further increases in training and improving technology, by providing the Soviets with new and modern facilities in research, development, testing and production;
 - (d) awakening in the Soviet engineers the recognition of the importance to electronics of supporting technologies, ie, chemical and metallurgical technology in vacuum tubes and other components, etc;
 - (e) transplanting to the USSR the methods and techniques of the German shop and laboratory;
 - (f) stressing the importance of scientific and technological instrumentation and its value in the development and production of electronics equipment;
 - (g) interpreting for the Soviets the war-time developments of Germany and the West, and particularly the post-World War II developments of the USA.

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e. Knowledgeability of German Returnees on Soviet Electronics.

- (1) "Though most German specialists while in the USSR handled a variety of classified problems, and some [] handled problems claimed to be of a very high security level, no German was told by the Soviet engineers and leaders any more than was necessary for his handling of his problems; none were permitted to have or handle classified material; none were given freedom of movement outside his narrow territory and field of activities; none visited the Soviet laboratories or plants where Germans did not work.
- (2) "Much could be deduced by the German specialists as to the reasons, purposes and end-products of their work and from the work of other Germans who they saw or kept in contact with. Occasionally, some of these observations fitted very well with the unguarded remarks of the Soviet personnel we dealt with; however []

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- (4) "The lower-grade German application engineers, technicians and mechanics, on the other hand, were put to work by the Soviets, from the start, on the problems which they were accustomed and qualified to handle and were usually left alone with the supervisory control not much different from that exercised over them in Germany. There were two reasons for this: (a) there was at that time a very severe general shortage of such men in the USSR, which at Fryazino was further aggravated by very poor living conditions, even by Soviet standards; (b) they also represented a lesser security handling problem for the Soviets because of the nature of their work. They were therefore welcomed by their Soviet co-workers and had no serious personal grievances.

c. Repatriation of German Specialists.

- (1) "The Soviet program to repatriate German scientists is not controlled by the contractual agreements between the Soviets and the German specialists but by general policy and the Soviet appraisal of their needs. [redacted] though some Germans went to the USSR under contract most of those presently [September 1953] there, are without any contract, and most of them are held there against their will. Specifically, [redacted] the entire Buschbeck group, working in Moscow on problems of remote control, was retained against their will, as well as a high-frequency group and a tube group in Leningrad. The German group in Kaliningrad is still there. The reports of the so-called renewed contracts by the Germans should be taken very cautiously. [redacted] do not know of any German who signed a contract as we understand it, stipulating the period of employment, conditions of work and payments, and conditions of release. The so-called Soviet contracts are merely questionnaires, identical with those filled out by the Soviet engineers, regarding training, experience and background. The heading of the questionnaires is filled out by the Soviets after it is prepared by German engineers, but the Germans do not receive copies of the completed forms nor any other information. The questionnaires, or 'contracts,' are without practical meaning anyhow, as Germans are retained regardless of their action on these questionnaires. Thus, although only about half of Buschbeck's group did fill out the questionnaires, the whole group was retained. However, paradoxically, the opposite to this is also true: some of the Germans in Fryazino requested permission to stay in the USSR, but their requests were not granted. [redacted] basically the Soviet repatriate those German specialists whose activities are no longer essential to them, and retain those who work in the fields where technical or training problems still exist. 25X1
- (2) "German specialists in the USSR, and the Soviets themselves, know about repatriated Germans defecting to the West. Thus, it was known that of the Fryazino group returned to East Germany in 1950, some ten men went to Western Germany. This does not appear to trouble the Soviets and their only security measure, which applies to the disclosure of German activities in the USSR, is to put every returnee through a cooling-off period of about a year in the USSR and to require a written statement from each returnee that he will not reveal to anyone what specific projects he worked on in the USSR. [redacted]

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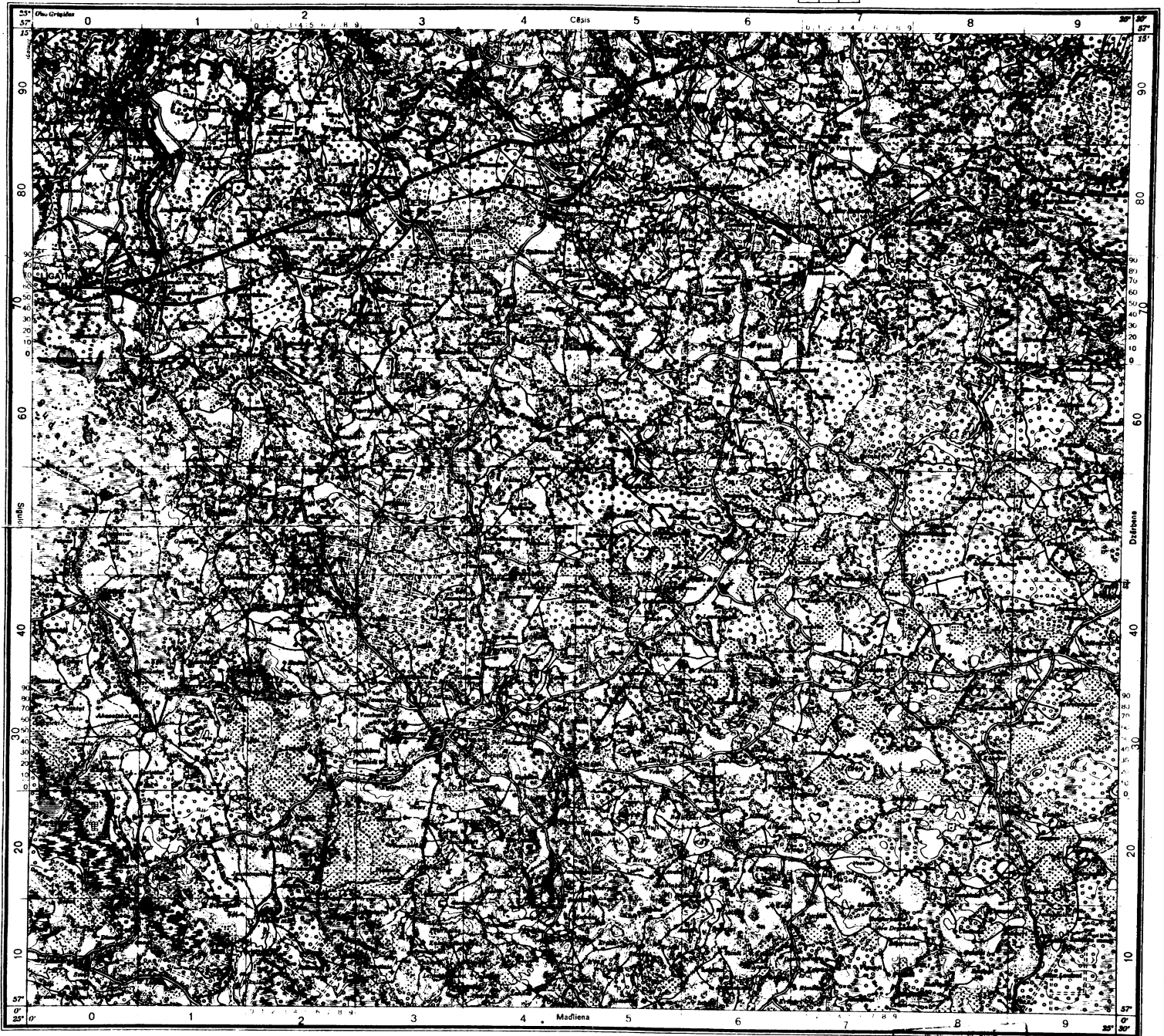
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